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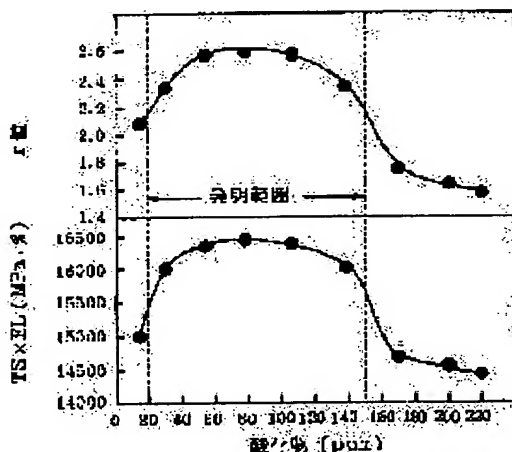
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## (54) STEEL SHEET FOR DEEP DRAWING, EXCELLENT IN SURFACE CHARACTERISTIC, AND ITS MANUFACTURE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a steel sheet excellent in surface characteristic, formability and deep drawability, and its manufacture.

SOLUTION: The steel sheet contains, by weight,  $\leq 0.010\%$  C,  $\leq 1.0\%$  Si,  $\leq 3.0\%$  Mn,  $\leq 0.15\%$  P,  $\leq 0.05\%$  S,  $< 0.01\%$  Al,  $\leq 0.01\%$  N,  $\geq 0.015\%$  Ti, and  $\geq 0.0005\%$  Ca and/or metallic REM and also contains 0.01-0.1 wt.% of non-oxide Ti (Ti\*) and contains Al in an amount satisfying (1)  $\text{wt.\%Ti/wt.\%Al} \geq 5$  or (2)  $\text{Al} \leq 0.010 \text{ wt.\%}$  and  $\text{wt.\%Ti/wt.\%Al} < 5$ . At the time of its manufacture, a slab is heated and soaked at 900 to 1,300°C, finish rolling is finished at 650 to 960°C, coiling is done at 400 to 750°C, cold rolling is carried out at 50 to 95% draft, and the resultant sheet is subjected to recrystallization annealing at 700 to 920°C.



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